

INITIAL STATEMENT OF REASONS AND PUBLIC REPORT  
DEPARTMENT OF PESTICIDE REGULATION

Title 3. California Code of Regulations  
Amend Section 6400  
Pertaining to Sulfuryl Fluoride

This is the Initial Statement of Reasons required by Government Code section 11346.2 and the public report specified in section 6110 of Title 3, California Code of Regulations (CCR). Section 6110 meets the requirements of Title 14 CCR section 15252 and Public Resources Code section 21080.5 pertaining to certified state regulatory programs under the California Environmental Quality Act.

SUMMARY OF PROPOSED ACTION/PESTICIDE REGULATORY PROGRAM  
ACTIVITIES AFFECTED

The Department of Pesticide Regulation (DPR) proposes to amend section 6400. The pesticide regulatory program activities that will be affected by the proposal are those pertaining to pesticide chemicals designated as state restricted materials. In summary, the proposed action would designate sulfuryl fluoride as a restricted material. The proposed regulatory action would make permanent the emergency regulation that is now in effect.

SPECIFIC PURPOSE AND FACTUAL BASIS

Sulfuryl fluoride is a gaseous fumigant currently used for termite eradication in homes and other structures, and to control insects in construction materials, mills, ships, railroad cars, and other transportation vehicles. These sites are normally fumigated by tarping or sealing the entire structure and injecting sulfuryl fluoride into the enclosed air space. Fumigation takes approximately 24 hours to complete. After these structures are fumigated, they are aerated using natural ventilation or exhaust fans until the ambient air levels of sulfuryl fluoride reach five parts per million (ppm) or less.

Sulfuryl fluoride is a Category I pesticide due to its acute inhalation toxicity. DPR scientists have reviewed toxicity data and identified possible acute, subchronic, and chronic adverse effects. Due to its high vapor pressure, the expected primary route of sulfuryl fluoride exposure is through inhalation. Exposure to high levels of sulfuryl fluoride may produce harmful effects on people, such as toxicity to the brain and respiratory system. Based on its acute inhalation toxicity, the U.S. Environmental Protection Agency (U.S. EPA) designated sulfuryl fluoride as a federally restricted-use pesticide pursuant to section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Sales and use of this pesticide are limited to certified applicators and those under their direct supervision, thus controlling the number of persons with direct access to the fumigant.

3CCR section 6400(a) states that any pesticide labeled as a "restricted use pesticide" pursuant to section 3 of FIFRA is also designated as a restricted material in California. Generally, possession and use of a restricted pesticide are allowed only under a permit from the local county

agricultural commissioner (CAC). However, 3CCR section 6414(b) exempts pesticides listed under section 6400(a) from a restricted-materials permit provided the pesticide is used by or under the supervision of a certified applicator, unless otherwise required by the commissioner. Additionally, pursuant to FAC 14006.6(d) permits are not required of persons performing structural pest control and operating pursuant to a license issued under Chapter 14 of Division 3 of the Business and Professions Code.

In January 2004, U.S. EPA registered sulfuryl fluoride for use on a wide range of food commodities, such as dried fruits; almonds, walnuts, and other tree nuts; cereals and small grains; and cereal and small grain processed products. Also, it was federally registered for commodity use in fumigation chambers, indoor or outdoor areas where commodities would be sealed with a tarpaulin, structures that would be sealed with a tarpaulin or tape, surface ships and barges, and stationary vehicles (trailers, trucks, and containers).

In February 2004, DPR received an application requesting registration of sulfuryl fluoride for similar uses in California. DPR reviewed the application requesting registration of sulfuryl fluoride for use in mills, warehouses, stationary transportation vehicles (railcars, trucks, etc.), temporary and permanent fumigation chambers, and storage structures containing commodities listed on the label. Fumigation procedures are similar to those procedures used for termite eradication in homes and other structures, and insect control in construction materials, mills, ships, railroad cars, and other transportation vehicles. However, label directions require that these fumigation facilities be aerated until the ambient air levels of sulfuryl fluoride reach one ppm or less.

Based on air monitoring data submitted, DPR has determined that in some cases ambient air concentrations may exceed the acceptable level of one ppm when following labeled directions--specifically, fumigations to large grain-processing facilities. Current requirements in both state and federal law and regulation specify that all pesticides be used consistent with, and not in conflict with, their labeling. Without additional mitigation measures, acute and seasonal inhalation exposures to nearby residents could possibly occur.

The Director found that the use of sulfuryl fluoride is not expected to cause any significant adverse effect on human health and the environment, provided additional mitigation measures are taken when fumigating large grain-processing and commodity-treatment facilities, and that there is a clear need for the product in California. Sulfuryl fluoride is proposed as a methyl bromide alternative for post-harvest fumigation of a variety of food commodities. Under the Federal Clean Air Act, 70 percent of methyl bromide production has been phased out. Therefore, on May 18, 2005, DPR's Director registered sulfuryl fluoride for the uses mentioned above. However, additional mitigation measures needed to be implemented to reduce the potential health risks to nearby residents from short-term off-site exposures from grain-processing and commodity-treatment facility fumigations. Mitigation measures also need to be implemented to reduce longer-term (e.g., seasonal), off-site exposures from commodity-treatment facility fumigations.

Prior to registering sulfuryl fluoride for these uses, DPR filed emergency regulations with the Office of Administrative Law (OAL File No. 05-0325-01E) to designate sulfuryl fluoride as a California restricted pesticide in section 6400(e), providing an immediate and effective mechanism which allows CACs to implement feasible mitigation measures through permit conditions, thus preventing the potential health risks associated with the off-site movement of sulfuryl fluoride to persons living near commodity-treated fumigation facilities. The emergency regulations became effective on April 4, 2005.

Current California law and regulations provide for a list of pesticides for which special considerations are indicated. These restricted materials are generally required to be used by certified applicators that have demonstrated their knowledge and skills to properly use pesticides under a permit issued by the CAC. The permit process is unique to California.

Food and Agricultural Code (FAC) section 14004.5 authorizes the Director, by regulation, to designate and establish a list of restricted materials based upon a criteria which includes danger of impairment of public health. Designating this chemical as a state restricted material will provide an effective mechanism which allows CACs to implement feasible mitigation measures through permit conditions, thus preventing the risk of acute and seasonal exposures from the off-site movement of sulfuryl fluoride to persons living nearby fumigation facilities. The facility owner or operator will be required to obtain a permit from the CAC. This process will allow the commissioner to place additional conditions on the permit, where necessary, that are precisely crafted on a site-specific basis to protect nearby residents. The permit process has the advantage of allowing flexibility in requirements. The problems unique to that use site can be specifically addressed without placing unnecessary burdens on other applications.

This proposed action would permanently add sulfuryl fluoride to section 6400(e) designating sulfuryl fluoride as a state restricted material necessary to implement critical measures to minimize off-site movement of sulfuryl fluoride and to ensure the protection of human health from the risks posed from off-site movement. Without these additional mitigating controls, the unrestricted use of sulfuryl fluoride when used as a post-harvest fumigant in large grain-processing and commodity-treatment facilities poses unacceptable risks to human health.

#### CONSULTATION WITH OTHER AGENCIES

DPR has consulted with the California Department of Food and Agriculture during the development of the text of proposed regulations as specified in FAC section 11454, and the February 6, 1992, Memorandum of Agreement that was developed as provided in section 11454.2. Copies of correspondence with the California Department of Food and Agriculture are contained in the rulemaking file.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION (GOVERNMENT CODE SECTION 11346.2(b))

DPR has not identified any feasible alternatives to the proposed regulatory action that would lessen any possible adverse economic impacts, including any impacts on small businesses, and invites the submission of suggested alternatives.

As discussed in the Notice of Proposed Regulatory Action, published in the California Regulatory Notice Register, DPR has determined that the adoption of this regulation will not have a significant impact on private persons or businesses.

IDENTIFICATION OF AN SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECT THAT CAN REASONABLE BE EXPECTED TO OCCUR FROM IMPLEMENTING THIS PROPOSAL

DPR has not identified any significant adverse environmental effect from the proposed regulatory action.

EFFORTS TO AVOID UNNECESSARY DUPLICATION WITH FEDERAL REGULATIONS

The proposed regulatory action does not duplicate or conflict with the Code of Federal Regulations.

DOCUMENTS RELIED UPON

1. Gosselin, Paul H. Pesticide Product Registration Decision for Profume Gas Fumigant. Memorandum to Tobi Jones, March 2, 2005. Department of Pesticide Regulation.